



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,693	03/18/2004	S. Brandon Keller	200311777-1	7814

22879 7590 03/27/2006

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER
----------

KIK, PHALLAKA

ART UNIT	PAPER NUMBER
----------	--------------

2825

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/803,693	<b>Applicant(s)</b> KELLER ET AL.	
	<b>Examiner</b> Phallaka Kik	<b>Art Unit</b> 2825	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/18/04</u> . | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

1. This Office Action responds to the Application and IDS filed on 3/18/2004.

Claims 1-33 are pending.

#### *Specification*

2. The disclosure is objected to because of the following informalities:  
the referenced U.S. application numbers are missing (see page 1 of Applicant's specification).

Appropriate correction is required.

#### *Claim Objections*

3. **Claims 12-19,26-30** are objected to because of the following informalities:  
As per **claim 12**, "second" (line 10) should be --external-- for proper antecedent basis.

As per **claims 13-19**, the claims are objected to for incorporating the above errors into the respective claims by claim dependency.

As per **claim 26**, "second" (line 12) should be --external-- for proper antecedent basis.

As per **claim 28**, "are flattened" (line 4) should be deleted for proper grammar.

As per **claims 27-30**, the claims are objected to for incorporating the above errors into the respective claims by claim dependency.

Appropriate correction is required.

#### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-33** are rejected under 35 U.S.C. 102(b) as being anticipated by **Taylor et al.** (U.S. Patent No. 5,815,402).

As per **claims 1,7-9,12,20-21,25-26,31-33**, all of the elements of the claims are illustrated in Figs. 7 and 9, wherein the flat netlist driver (710) reads or traverse the logical representation of the hierarchical design (i.e., schematic netlist) (see steps 904-920 of Fig. 9), which includes reading/loading determining the RC information as parameters (see col. 10, lines 31-42; col. 8, lines 13-47), wherein the flat netlist formatter writes the flat representation of each instantiation to the flat netlist file (col. 10, line 43 to col. 11, line 49), for use by other tools (i.e., other software and tools used by other designers--col. 1, lines 49-68; Fig. 8, showing at least simulator software, schematic design tool to which the flat netlist is accessible), wherein such flat netlist files can be considered as external since it is at least external to the flat netlist driver and is accessible by other tools or processes; wherein the computer readable medium operable with a computer, containing computer-executable instructions for implementing the method, the system, and the means associated with the system are part of the CAD system (see col. 6, lines 30-47; Fig. 6), being necessary to implement the computer-implemented method.

As per **claims 2,13,27**, all of the elements of claims 1,12,26, from which the claims depend, are discussed in the rejections of claims 1,12,26 above, wherein the deleting of the information for the block from the RC model are also described in col. 22, line 62-67 and col. 24, lines 31-65.

As per **claims 3-5,10,14-16,28-30**, all of the elements of claims 1,7,12,26, from which the respective claims depend, are discussed in the rejections of claims 1,7,12,26 above, wherein the particular order of flattening the hierarchical design and the different levels of hierarchy being process are also illustrated in Fig. 9, showing a top-down flow, from top blocks to lower blocks (i.e., flattening first hierarchical level first before next hierarchical level) and performing all of the blocks of a particular net or group being selected before going to a different net or group.

As per **claims 6,11,19,24**, all of the elements of claims 1,7,12,20, from which the respective claims depend, are discussed in the rejections of claims 1,7,12,20 above, wherein the storage capacity of the second analysis tool/system is greater than the storage capacity of the first circuit analysis tool is within the scope of the prior art because the flattened file is inherently larger than the hierarchical file and any processing tool/system that processes the larger file (i.e., the flattened file) must necessarily have greater storage or memory capacity than that of the tool/system processing the smaller file (i.e., hierarchical file) in order for the that tool/system to process the required amount of data.

As per **claims 17-18,22-23**, all of the elements of claims 12,20, from which the respective claims depend, are discussed in the rejections of claims 12,20 above,

wherein the storage devices for storing logical representation and RC model are also in Fig. 6 as part of the storage of the computer system for which the circuit design files (i.e., schematic file, netlist files) are stored.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Therefore, Applicant is herein requested to consider them carefully in response to this Office Action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 571-272-1895. The examiner can normally be reached on Monday-Thursday, 8:30AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this action should be mailed to:**

Commissioner for Patents

Application/Control Number: 10/803,693  
Art Unit: 2825

Page 6

P. O. Box 1450

Alexandria, VA 22313-1450

**or faxed to:**

571-273-8300

A handwritten signature in dark ink, appearing to read "Phallaka Kik", written in a cursive style.

Phallaka Kik  
U.S. Patent Examiner  
March 18, 2006